

CERTIFICATE OF EXPRESS MAILING

Express Mail label no.EL564796775

Date of Deposit March 9, 2001

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as "Express Mail" service under 37 CFR §1.10 in an envelope addressed to Honorable Commissioner of Patents and Trademarks, Washington, D.C. 20231, on the date of deposit as indicated above

Ellen J. Kapinos
Ellen J. Kapinos

GI 5160C-C2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Elizabeth Wang, John Wozney and Vicki Rosen
Serial No. : TBD Art Unit: TBD
Filed : Herewith Examiner: TBD
For : NOVEL BMP PRODUCTS

Hon. Commissioner of Patents
and Trademarks
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Prior to examination of the above application, please amend the application as follows:

In the Specification:

Insert before the first line of the specification

This application is a continuation of USSN 08/925,779 filed September 9, 1997, which is a continuation of USSN 07/721,847 filed June 14, 1991, which is a continuation-in-part of 07/493,272 filed March 14, 1990(abandoned); which is a continuation- in- part of 07/406,217 filed

September 12, 1989 which is a continuation-in-part of 07/655,579 filed March 18, 1991 which is a divisional of 07/179,100 filed April 8, 1988 (US Patent 5,013,649) which is a continuation- in- part of 07/028,285 filed March 20, 1987(abandoned) ;which is a continuation- in-part of 06/943,332 filed December 17, 1986 (abandoned) which is a continuation-in-part of 06/880,776 filed July 1, 1986, abandoned.

In the Claims:

Please add new claims as follows:

24. An isolated DNA molecule comprising a DNA sequence selected from the group consisting of:

- (a) nucleotides 1202 through 1543 of Figure 2;
- (b) nucleotide 1252 through 1543 of Figure 2;
- (c) nucleotides 1279 through 1626 of Figure 3;
- (d) nucleotides 1333 through 1626 of Figure 3;
- (e) nucleotides encoding amino acids 283 through 396 of Figure 2;
- (f) nucleotides encoding amino acids 299 through 396 of Figure 2;
- (g) nucleotides encoding amino acids 293 through 408 of Figure 3;
- (h) nucleotides encoding amino acids 311 through 408 of Figure 3; and
- (i) naturally occurring allelic sequences and equivalent degenerative codon sequences

of (a) through (h).

25. An isolated DNA molecule comprising a DNA sequence of nucleotides 1202 through 1543 of Figure 2.

26. An isolated DNA molecule comprising a DNA sequence of nucleotide 1252 through 1543 of Figure 2.
27. An isolated DNA molecule comprising a DNA sequence of nucleotides 1279 through 1626 of Figure 3.
28. An isolated DNA molecule comprising a DNA sequence of nucleotides 1333 through 1626 of Figure 3.
29. An isolated DNA molecule comprising a DNA sequence of nucleotides encoding amino acids 283 through 396 of Figure 2.
30. An isolated DNA molecule comprising a DNA sequence of nucleotides encoding amino acids 299 through 396 of Figure 2.
31. An isolated DNA molecule comprising a DNA sequence of nucleotides encoding amino acids 293 through 408 of Figure 3.
32. An isolated DNA molecule comprising a DNA sequence of nucleotides encoding amino acids 311 through 408 of Figure 3.
33. An isolated DNA sequence encoding BMP-2 protein which hybridizes to a DNA sequence of claim 30 under stringent hybridization conditions.
34. An isolated DNA sequence encoding BMP-4 protein which hybridizes to a DNA sequence of claim 32 under stringent hybridization conditions.
35. A vector comprising a DNA molecule of claim 24 in operative association with an expression control sequence therefor.
36. A vector comprising a DNA molecule of claim 33 in operative association with an expression control sequence therefor.

37. A vector comprising a DNA molecule of claim 34 in operative association with an expression control sequence therefor.

38. A host cell transformed with a vector of claim 35.

39. A host cell transformed with a vector of claim 36.

40. A host cell transformed with a vector of claim 37.

41. An isolated DNA molecule comprising a DNA selected from the group consisting of ATCC deposits 40345 and 40342.

42. A method for producing a BMP-2 protein said method comprising the steps of:

- (a) culturing a host cell transformed with a DNA sequence of claim 33, and;
- (b) recovering said BMP-2 protein.

43. A method for producing BMP-4 protein, said method comprising the steps of:

- (a) culturing a host cell transformed with a DNA sequence of claim 34, and;
- (b) recovering said BMP-4 protein.

44. A BMP-2 made by the method of claim 42.

45. A purified BMP-2 polypeptide comprising an amino acid sequence encoded by a DNA sequence comprising nucleotides 1202 through 1543 of Figure 2.

46. A purified BMP-2 polypeptide comprising an amino acid sequence encoded by a DNA sequence comprising nucleotides 1252 through 1543 of Figure 2.

47. A purified BMP-2 protein comprising an amino acid sequence of amino acid 283 through 396 of Figure 2.

48. A purified BMP-2 protein comprising an amino acid sequence of amino acid 299 through 396 of Figure 2.

49
~~50~~

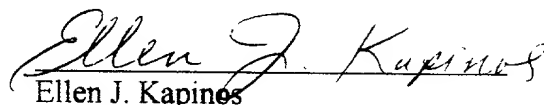
An antibody to a purified BMP-2 polypeptide of claim 47.

REMARKS

Claims 1-23 as originally filed remain in the application and claims 24-50 have been added.

If any fee is due with regard to this paper, Applicants hereby authorize payment of such fee from
Deposit Account No. 07-1060.

Respectfully submitted,



Ellen J. Kapinos
Reg. No. 32,245
Attorney for Applicants
Telephone 617 665-8857
Telefax 617876-5851

Correspondence address:
Kay Brady
American Home Products Corp.
Patent Dept. 2B
One Campus Drive
Parsippany New Jersey 07054

5160CC2.PRE